

Foreign Direct Investment in Thailand

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Introduction

The recent investment boom in Thailand, starting in the latter half of 1986, reached its peak in 1988 and declined slightly in 1989. But the number of applications and applications approved by the Board of Investment in 1989 was still higher than that of 1987; thus, for the time being, the current high level of investment might well continue. It is important to note that foreign direct investment has taken a leading role in the current investment boom. The same situation was seen in the 1960's, it being a well-known fact that foreign direct investment had played an important role in the early stages of industrialization in Thailand during that period. It was only in the 1970's that Thai firms exceeded foreign firms in terms of the number of projects promoted. Again in the latter half of the 1980's, a large inflow of foreign direct investment gave Thailand the chance to develop into the advanced structure of industry and to attain the status of a Newly Industrialized Economy (NIE) in the near future.

A few years ago, at the time of planning of the current Sixth Five Year Development Plan, no-one anticipated such a rapid change in the economic situation. In the midst of the economic depression that occurred in the first half of the 1980's, a pessimistic view prevailed concerning the future of Thai economy. It was pointed out that triple distress, namely the trade deficit, fiscal deficit and an accumulation of external debts, constituted the main obstacle to economic recovery, and that no improvement could be expected until around 1990. In short, the latter half of the 1980's was expected to be a period of economic crisis. Therefore, all large-scale development projects, including major infrastructure construction projects, were reevaluated and those which were considered less important were either reduced in scale or postponed. This adjustment in policy had an adverse effect on the investment climate once the Thai economy recovered, and the shortage of infrastructure has been a matter of great concern to potential investors since 1988, thus restraining the inflow of foreign direct investment.

The Thai economy began to show signs of recovery in the latter half of 1986, due to an increase in manufactured exports, the falling price of crude oil and the lowering of interest rate. Moreover, due to the high appreciation of the Japanese yen after the Plaza Accord of September 1985 as well as the appreciation of Asian NIES currencies such as those of Taiwan and South Korea, many firms in these countries have started to relocate their production and export base into Thailand. The large inflow of foreign investment also contributed to the country's economic recovery, leading in turn to the current investment boom and further progress in the field of industrialization. Foreign direct investment has had various impacts upon the Thai economy. Its impact was first seen in the structural change in exports in the form of the sizable increase in manufactured goods. Furthermore, a structural change in

production can be expected in the near future, whereby the industrial sector will move into a more advance stage and become well diversified.

The Thai economy has been undergoing a rapid change, as mentioned above, and the impact of foreign direct investment on this structural change is considered to be far-reaching. This chapter examines the characteristics of foreign direct investment, after which the adjustments that the Board of Investment has made in its industrial promotion policy to bring it into line with the changing economic situation, will be reviewed.

I Upsurge in Foreign Direct Investment

1. Characteristics of Recent Investment Boom

The recent investment boom can be characterized from six different aspects as follows:

(1) Foreign capital has played a leading role in investment. In terms of the projects whose applications have been approved by the Board of Investment (hereafter BOI) during the past four years, foreign investors dominate around 60% of the total number of projects. Furthermore, in 1988, for the first time in the history of the BOI, the amount of foreign registered capital exceeded that of Thai investors in terms of the number of projects approved.

(2) Shift from import-substitution and local market-oriented industries to export-oriented industries. This change is significant in that the Thai Government had been trying to promote export-oriented industries since the 1970's, but had not been as successful as they had expected. There are two factors contributing to this shift. First, the BOI agreed to promote wholly foreign-owned projects on condition that more than 80% of their output be exported. The second factor was the appreciation of the currencies of Japan and Asian NIES. A number of firms in these countries came to invest in Thailand, in order to take advantage of the low production costs, using it as their production and export base for exporting goods to their home country or to third countries. Owing to these factors, since 1987, there has been a sharp rise in export-oriented industries.

(3) Investment has spread to various parts of the industrial sector. This is particularly true of Japanese investment projects for various reasons. Some, losing their export competitiveness due to the strength of the yen, decided to relocate their production and export base to Thailand. Manufacturers of spare parts and components, being sub-contractors for larger companies in Japan, came to invest at the request of those companies already operating in Thailand in order to reduce the increase in cost of importing parts and components from Japan. Some have adopted the production policy of horizontal division of labour, whereby Thailand is assigned the role of one of the parts and components suppliers. Moreover, expanded production activities required other types of supporting industries, thus providing new investment opportunities.

(4) Increase in investment in medium-advanced, or small and medium-scale industries. Taiwan is typical of this type of investment because the industrialization in Taiwan has been

achieved largely by small and medium-scale industries. In the case of Japan, the recent increase in investment in various sectors of industry, as mentioned in (3), has been largely due to the medium-advanced or small and medium-scale industries. As far as the average size of the work force in Japanese firms is concerned, 217 Thai workers were employed in the projects approved in 1988, while in 1982, 427 workers were employed by a total of 166 firms, both those already in operation and those which had received a promotional certificate but were not yet operating. Although the comparative term is different, it clearly shows the increase in small and medium-scale investment.

(5) The number of wholly foreign-owned projects has increased since the BOI allowed projects of this nature provided they were export-oriented. As regards joint ventures, the number of projects in which foreigners own a majority share is also increasing. Compared to the total number of projects, the percentage of wholly foreign-owned projects increased from 5% in 1980 to 11% in 1986, and to 37% in 1987. The same trend is seen in projects in which foreigners own a majority of shares: these rose from 7% in 1980 to 23% in 1987. After 1988, however, the ratio of shares held by foreigners witnessed a decline. In 1988, wholly foreign-owned projects constituted 27% of the total number of projects while those in which foreigners owned the majority of shares constituted 22%. In 1989, the overall share of wholly foreign-owned projects declined to 13%.

(6) Shift of location from the Metropolitan area to the provinces. One of the reasons for such a move was that the BOI adopted a policy of encouraging industrial dispersion, including locations on the Eastern Seaboard. Another reason is the increasing difficulty of locating in the Metropolitan area due to the shortage of infrastructure and soaring land prices. With the exception of the heavy and chemical industries on the Eastern Seaboard, investment in the provinces is mainly confined to agro-industries, though there is an increasing trend to diversify into various fields of industry such as electronics parts, leather gloves, sports shoes, garments, jewelry and ornaments, and so on.

2. Overview of Foreign Direct Investment

The recent trend in foreign direct investment can be examined from two sources. The first is BOI data, which is frequently quoted whenever the need arises to determine trends in foreign investment, the other being the Bank of Thailand's statistics on foreign direct investment. BoI data is based on the project proposals; hence, it does not show the actual figures regarding investment or employment. Moreover, it covers only those promoted industries. Nevertheless, the data is important in determining the trends and characteristics relating to investment in the manufacturing sector. While the Bank of Thailand's statistics show the actual flow of foreign direct investment and cover the entire sector in which there is foreign direct investment, unlike the figures of the BOI, they do not provide the data on each individual company.

The current investment boom has continued unabated for the past three years, while the scale of investment is far more extensive than in the past. Tables 1 and 2 show the achievements of the BOI's promotional activities. Between 1987 and 1989, the number of projects seeking promotional privileges exceeded 1,000 per year, the highest in the history of the BOI. The number of applications and total investment grew rapidly: in 1986, there were 431 projects,

representing a total investment of 59.7 billion baht; in 1987, 1,058 projects worth 209 billion baht; and in 1988, 2,125 projects worth a total of 530.3 billion baht. In 1989, though the number of applications up to November declined to 1,109 projects, worth a total investment of 339.5 billion baht, the figures still surpassed the result of 1987. One of the reasons more than 2,000 applications were submitted in 1988 was that investors rushed to apply to the BOI before the new changes in promotional criteria came into force in January 1989. Given this situation, the decline in the number of applications in 1989 should not be considered excessive. In 1986, the average investment per project was 140 million baht; in 1987, 200 million baht; in 1988, 250 million baht; while in 1989, up to November, total investment amounted to 310 million baht. On average, the size of investment is increasing year by year.

As mentioned above, one of the characteristics of the current investment boom is a large inflow of foreign direct investment. This characteristic was clearly apparent in 1988, when the amount of registered capital from foreign sources exceeded that from Thai sources for the first time in the history of the BOI. In terms of the number of applications approved, the total amount of registered capital grew 6.6 times, from 9,200 million baht in 1986 to 60,400 million baht in 1988. Foreign capital grew 10.2 times, from 3,140 million baht to 32,020 million baht, while Thai capital grew only 4.7 times, from 6,060 million baht to 28,400 million baht. Thus, foreign capital exceeded Thai capital. Although this was the case only in 1988, the figures reflect the increase in foreign investment in Thailand.

Another investment scenario is seen from the data of the Bank of Thailand. Table 3 shows trends in foreign direct investment since 1965. Foreign direct investment is composed of equity investment and direct investment loans from parent companies or associate concerns, including capital funds from foreign commercial banks. The increase in the inflow of direct investment has continued uninterrupted, the amount doubling every five years. It appears strange that the net inflow in 1987 was only 9,000 million baht, lower than the 9,600 million baht registered in 1986, the figures creating the impression that investment from abroad was not yet been in full swing. The inflow of equity investment, however, confirmed the big increase in investment: in 1987, equity investment totalled 10,600 million baht, an increase of 68% over 1986, reaching 23,100 million baht in 1988, an increase of 117% over the previous year. This indicates that, between 1987 and 1988, equity investment constituted the mainstream of foreign direct investment.

The figures for the net inflow in 1987, announced by the Bank of Thailand in 1988 and in 1989, show a difference of 4,300 million baht. This is because, until 1988, the amount of Thai investment abroad was included in the outflow of equity investment. As a result, the outflow of foreign capital appeared greater than it actually was, thus accounting for the small net inflow. Thai investment abroad had not been so large in the past; nevertheless, in 1987, 4,300 million baht was invested abroad, thus widening the above-mentioned gap. In 1987, Thai investment abroad was concentrated mainly in Hong Kong, the United States and Singapore. 99% of it was invested in the overseas branches of Thai commercial banks while the remainder went to the manufacturing sector, food and textiles. The figures after 1978 in Table 3 were revised but those before 1977 were compiled without revision. This is the same with other tables compiled from the Bank of Thailand.

Table 1
Results of BoI Promotion Activity

Year	No. of Applications	No. of Applications Approved	No. of Approvals Cancelled	No. of Promotion Certificates Issued	No. of Promotion Certificate Withdrawn or Cancelled	No. of Project Starting Operation	No. of Firms Starting Operation
1968	252	149	8	105	30	82	73
1969	242	121	39	86	13	89	80
1970	117	94	23	91	33	67	56
1971	103	52	16	76	12	59	43
1972	180	116	17	70	14	47	36
1973	552	325	6	116	14	58	40
1974	228	176	40	251	28	108	84
1975	111	83	44	86	61	69	52
1976	119	61	21	66	34	85	83
1977	264	102	17	69	34	49	48
1978	342	202	12	128	25	59	54
1979	338	233	20	154	29	69	68
1980	245	160	}	143	}	}	73
1981	265	170		121			66
1982	200	110	28	122	37	168	86
1983	341	140	28	103	47	104	96
1984	376	266	22	164	47	93	75
1985	325	210	34	182	36	78	59
1986	431	295	73	191	52	145	117
1987	1,058	625	44	377	61	169	129
1988	2,127	1,463	74	913	42	224	177
1989.1-10	967	994	255	727	45	249	216

Source: BOI Activity Report, various issues.

Table 2
Registered Capital Classified by Country

	1981	1982	1983	1984	1985	1986	1987	1988	1989(1-10)
(1) Applications	265	200	341	376	325	431	1,058	2,127	967
Total Investment	140,783	21,477	56,073	54,896	59,583	59,688	209,029	530,761	319,102
Registered Capital	17,895	5,019	10,284	12,240	14,997	15,804	57,159	139,454	81,797
Thai	12,233	3,487	7,834	8,147	10,148	10,962	31,924	79,048	51,287
Foreign	5,662	1,532	2,450	4,093	4,849	4,842	25,235	60,406	30,509
Japan	965	95	388	1,199	443	1,690	9,386	21,292	10,002
Taiwan	43	43	270	305	445	602	2,078	9,610	5,393
US	1,398	71	335	427	2,732	546	1,870	5,059	772
India	251	372	37	128	15	129	848	1,130	1,684
Hong Kong	111	179	121	249	183	87	850	1,633	2,266
Singapore	367	18	91	306	27	34	602	1,373	552
S. Korea	-	68	-	4	28	3	426	784	1,499
UK	638	209	68	390	112	193	233	2,306	1,536
Australia	113	10	382	127	36	100	843	3,618	39
W. Germany	219	26	39	141	9	98	75	230	932
Netherland	90	73	27	17	-	5	77	463	347
Machinery and Equipment	4,250,453	10,911	31,283	24,381	22,603	25,019	113,895	260,881	124,890
No. of Thai Employees	65,493	34,588	72,516	118,774	76,420	100,681	332,568	532,422	315,352

(Continued)

Table 2
Registered Capital Classified by Country (Continued)

(Unit: Million Baht)

	1981	1982	1983	1984	1985	1986	1987	1988	1989(1-10)
(2) Approval Total Investment Registered Capital	170 86,009 6,900	110 10,139 2,964	140 11,989 3,293	266 37,657 9,297	210 54,197 7,421	295 34,610 9,203	626 67,748 18,878	1,463 201,812 60,418	994 221,885 52,241
Thailand	4,953	2,072	1,937	6,844	5,537	6,064	10,500	28,397	31,640
Foreign	1,947	892	1,356	2,453	1,884	3,139	8,378	32,021	20,601
Japan	141	46	233	904	169	1,675	3,665	18,288	8,823
Taiwan	58	18	32	248	111	46	1,540	3,983	3,652
US	187	46	382	294	737	143	574	1,851	829
Hong Kong	39	43	51	181	163	230	350	894	897
UK	246	1	179	101	45	291	112	1,651	871
Netherlands	90	45	2	64	21	37	54	30	206
Singapore	322	8	63	60	37	97	54	524	969
India	104	63	16	82	12	27	52	106	369
Australia	59	3	109	125	13	16	38	240	180
W. Germany	36	6	24	39	11	121	31	179	269
S. Korea	43	-	7	3	12	4	107	530	376
Machinery and Equipment	22,470	4,962	4,173	18,874	16,892	18,508	36,599	103,652	86,756
No. of Thai Employees	41,547	20,063	26,703	64,845	59,374	60,231	204,113	352,827	282,953

Source: BOI: Activity Report, Various issues.

3. Foreign Direct Investment by Country

BOI data on registered capital, shown in Table 2, have been frequently quoted in order to determine trends affecting foreign investment in Thailand. As for the amount of registered capital in terms of applications approved, the following trends are observable. First, the top three investors, namely, Japan, the United States (hereafter termed the US) and Taiwan, increased its capital to a large extent. Second, investment from Asian NIES, such as Hong Kong, Singapore and South Korea, grew rapidly. Third, investment from European countries, the main target in the BOI's attempts to attract investment, also increased satisfactorily. There were, however, some changes in each country's share of total registered foreign capital. In 1987, Japan accounted for 44%, Taiwan 18%, the US 7%, Hong Kong 4%, the United Kingdom (hereafter referred to as the UK) 1%; while the figures for 1988 were as follows: Japan 57%, Taiwan 12%, the US 6%, the UK 5%, Hong Kong 3%. Up to October 1989, Japan accounted for 43%, Taiwan 18%, Singapore 5%, and Hong Kong, the UK, and the US 4%. This change of share depended on the amount of investment and the pattern of foreign shareholding; for instance, whether or not a company was wholly foreign-owned or whether foreigners owned a majority of the shares. In any case, these figures indicate the sharp rise of Japanese investment during 1987 and 1989.

In 1986, the proportion of projects in which foreigners participated to the total number of projects was 48% in terms of the number of applications and 52% in terms of the number of applications approved (see Table 4). This proportion increased gradually to 60% and 62% respectively in 1987, 60% and 61% in 1988, and 66% and 64% in the first 10 months of 1989. The main investors are Japan, Taiwan, the US, Hong Kong, Singapore, South Korea and The UK. The figures in Table 4 cover all the projects in which foreign firms invested, including even those with a less than 1% foreign shareholding ratio. Therefore, the number of foreign firms would be different if the limit to the foreign shareholding ratio were strictly applied.

As regards the actual amount of registered capital, Table 5 shows the accumulative total as of November 1985, just before the recent investment boom, until October 1989, in terms of the number of projects receiving promotional certificates. During this period only three countries increased their shares of overall foreign capital, namely Japan, Taiwan and Switzerland, although the last accounted only for a very small. Japan's share, around 41% in 1974, declined to 25% in 1983 due to a slowdown in investment, but rose to 55% in October 1989, thus indicating the large increase in Japanese investment in the previous three years. Taiwan, whose share also declined to 9% owing to the decrease in investment in the first half of the 1980's, raised its share to 10%. Although Hong Kong, Singapore and the UK have increased their investment in Thailand, the overall increase in the rate of investment is so high that the share of each of these three countries declined. Based on these observations, therefore, it may be said that the two leading countries investing in Thailand, in terms of BOI-promoted projects are Japan and Taiwan.

The real inflow of foreign direct investment is shown in Table 6. Each country's share of the net inflow from 1970 to 1988, in terms of a percentage, is as follows; Japan 36.7%, the US 24.2%, Singapore 4.9%, the UK 4.5% and Taiwan 4.4%. The following four points may be observed from Table 6. First, Japan is the largest source of direct investment, a fact

Table 3
Flow of Foreign Direct Investment

(Unit: Million Baht)

Year	Inflow			Outflow			Net Inflow		
	Equity	Loan	Total	Equity	Loan	Total	Equity	Loan	Total
1965-69	4,098.6	901.7	4,910.3	130.5	237.3	367.8	8,408.7	664.4	7,744.3
1970-74	7,079.5	3,372.0	10,451.5	458.1	1,426.1	1,884.2	6,621.4	1,945.9	8,567.3
1975-79	7,069.5	16,036.2	23,105.7	1,256.8	14,063.9	15,320.7	5,812.7	1,972.3	7,785.0
1980-84	26,582.8	32,528.9	59,111.7	1,583.4	25,041.5	26,624.9	24,999.4	7,487.4	32,486.8
1985-88	46,333.5	19,854.9	66,188.4	2,038.2	15,533.2	17,571.4	44,295.3	4,321.7	48,617.0
1980	3,703.8	5,555.2	9,259.0	132.7	5,248.1	5,443.0	3,571.1	307.1	3,878.2
1981	4,127.1	5,214.7	9,341.8	78.9	2,848.5	2,978.6	4,048.2	2,366.2	6,414.4
1982	3,884.0	5,712.5	9,596.5	505.3	4,759.8	5,292.8	3,378.7	952.7	4,331.4
1983	7,255.4	6,688.8	13,944.2	393.3	5,326.1	5,752.3	6,862.1	1,362.7	8,224.8
1984	7,612.5	9,357.7	16,970.2	473.2	6,859.0	7,332.2	7,139.3	2,498.7	9,638.0
1985	6,339.9	3,826.4	10,166.3	930.2	4,833.9	5,764.1	5,409.7	-1,007.5	4,402.2
1986	6,304.5	4,221.1	10,525.6	468.8	3,148.7	3,617.5	5,835.7	1,072.4	6,908.1
1987	10,621.0	1,915.0	12,536.0	373.2	3,119.0	3,492.2	10,247.8	-1,204.0	9,043.8
1988	23,068.1	9,892.4	32,960.5	266.0	4,431.6	4,697.6	22,802.1	5,460.8	28,262.9
1970-88	87,065.3	71,792.0	158,857.3	5,336.5	56,064.7	61,401.2	81,728.8	15,727.3	97,456.1

Source: Bank of Thailand.

Table 4
Foreign Investment, No. of Projects and Total Investment

(Unit: Million Baht)

	Applications				Applications Approved											
	1986	1987	1988	1989(1-10)	1986	1987	1988	1989(1-10)								
	No. Total Inv.	No. Total Inv.	No. Total Inv.	No. Total Inv.	No. Total Inv.	No. Total Inv.	No. Total Inv.	No. Total Inv.								
Total Investment	431	59,688	1,058	209,029	2,125	530,292	967	319,102	295	34,610	625	67,290	1,454	200,894	994	221,885
Total Foreign Investment	207	35,487	630	163,322	1,271	394,212	637	225,301	154	25,047	385	60,064	888	156,419	640	158,522
Japan	53	8,111	200	46,987	389	148,221	176	101,324	35	6,593	136	24,363	265	77,019	198	83,093
Taiwan	31	2,957	178	14,642	400	54,287	158	20,431	18	940	102	7,700	308	21,498	188	20,445
USA	24	13,998	61	19,214	136	92,767	52	14,794	20	1,067	34	4,431	106	17,028	52	10,957
Hong Kong	17	1,934	46	7,035	126	20,108	71	20,392	18	1,178	32	3,144	85	11,416	53	9,605
Singapore	9	330	37	5,129	90	16,954	28	8,216	6	250	17	1,630	59	6,924	39	7,937
Malaysia	7	201	13	771	39	4,299	21	2,023	11	462	7	281	25	2,475	12	781
S. Korea	2	20	16	2,303	40	3,679	34	7,203	2	23	7	333	36	2,758	23	1,987
Australia	6	528	22	7,331	30	29,851	6	334	4	297	12	984	19	1,325	16	2,236
Europe	42	16,292	110	33,131	148	73,569	96	26,366	35	5,185	51	6,901	110	26,257	104	20,235
UK	11	2,020	26	4,231	45	12,598			13	1,866	16	2,643	44	8,387		
Belgium	4	878	12	15,407	15	3,616			4	79	4	1,472	16	11,647		
W. Germany	9	1,139	14	720	25	5,612			5	739	7	337	17	3,513		
Switzerland	10	1,552	14	2,273	25	3,407			4	510	10	1,670	19	1,600		

Remarks: Total investment figures are of Thai as well as foreign investors. Firms with their foreign investment from more than one country are doubly counted.

Source: BOI.

Table 5
Accumulative Registered Capital by Country

(Unit: Million Baht)

	Nov. 1985		May 1989		Oct. 1989	
	Amount	% among Foreign Capital	Amount	% among Foreign Capital	Amount	% among Foreign Capital
Thailand	26,178.8		61,136.8		73,657.9	
Japan	2,768.3	26.9	19,958.0	53.3	24,992.3	54.8
U.S.A.	1,697.5	16.5	3,153.5	8.4	3,301.6	7.2
Taiwan	926.1	9.0	4,059.3	10.8	4,948.3	10.8
U.K.	714.0	6.9	1,329.6	3.5	1,468.9	3.2
Hong Kong	509.5	4.9	1,515.2	4.0	1,679.1	3.7
Singapore	458.2	4.4	1,218.0	3.3	1,377.1	3.0
Australia	314.9	3.1	375.9	1.0	401.0	0.9
Netherlands	276.3	2.7	463.1	1.2	521.0	1.1
Switzerland	152.2	1.5	458.0	1.2	1,277.9	2.8
Malaysia	266.6	2.6	328.0	0.9	367.6	0.8
W. Germany	161.8	1.6	245.8	0.7	289.4	0.6
India	160.0	1.6	230.2	0.6	253.2	0.6
Panama	49.8	0.5	348.7	0.9	398.7	0.9
Philippines	154.7	1.5	156.6	0.4	156.6	0.3
France	66.0	0.6	188.3	0.5	233.5	0.5
Denmark	49.2	0.5	73.5	0.2	85.5	0.2
Israel	16.8	0.2	19.0	0.1	19.0	0.0
Others	1,565.2	15.1	3,348.9	3.4	3,840.5	3.2
Total	36,485.6		98,606.2		119,269.1	

Source: BOI: Activity Report, various issues.

Table 6
Net Inflow of Foreign Direct Investment by Country

(Unit: Million Baht)

	1970-74	1975-79	1980-84	1985-88	1970-88
Japan	2,383.8	2,584.1	8,367.2	22,443.0	35,778.1
USA	3,295.3	2,607.3	8,984.5	8,675.5	23,562.6
UK	462.8	638.5	1,649.9	1,587.1	4,338.3
W. Germany	69.5	348.2	878.3	1,396.1	2,692.1
France	143.2	117.2	162.1	649.9	1,072.4
Netherland	239.8	96.9	2,138.7	265.3	2,739.7
Italy	109.2	384.0	385.3	126.3	966.2
Switzerland	49.2	275.0	400.7	1,703.8	2,428.7
Canada	51.2	-77.5	145.8	143.6	263.1
Australia	40.0	37.4	408.1	134.5	620.0
Hong Kong	942.0	394.7	3,253.1	5,454.8	10,044.6
Singapore	443.4	457.8	2,586.0	1,337.2	4,823.7
Malaysia	99.0	3.1	351.4	66.2	518.4
Taiwan	36.1	1.1	89.1	4,151.9	4,278.2
S. Korea	n.a	n.a	35.3	321.9	
China	n.a	n.a	1.5	382.5	
Total (includes other countries)	8,567.2	7,785.0	32,486.8	48,597.8	97,436.8

Source: Bank of Thailand.

also indicated by BOI data: however, it was not until 1987 that Japan replaced the US to receive top ranking. This points to the tremendous influence of the US in Thailand. Second, unlike the BOI data, which marked Taiwan as the No.2 investor, Table 6 suggests that Taiwan's investment is quite small. Third, Hong Kong and Singapore invested a comparatively large amount during the 1980's. Finally, Taiwan, Korea and China appeared to be newly rising investors.

As regards the first point, the shares of Japan and the US in total net inflow of direct foreign investment were as follows; 28.2% and 47.2% in the latter half of the 1960's, 27.8% and 38.5% in the first half of the 1970's, 33.2% and 33.5% in the latter half of the 1970's, 25.8% and 27.7% in the first half of the 1980's, and 46.2% and 17.9% in the latter half of the 1980's (up to 1988). Except for during the first half of the 1980's, Japan's share has increased steadily, while that of the US has consistently declined. Their combined share accounts for between 53.5% and 75.4%, more than half the total foreign investment in Thailand. The figures indicate the relative importance of the two countries. With regard to the second point, Taiwan ranked sixth in the accumulative outstanding, although this was due to the large inflow of investment in 1988. The inflow of direct investment from Taiwan appears rather different from the scenario suggested by the data of the BOI. As for Hong Kong and Singapore, the main type of investment is in the form of loans from parent companies or their affiliates; this indicates the importance of these two countries as a source for raising funds.

The pattern of direct investment from five countries Japan, the US, Taiwan, Hong Kong and Singapore- can be seen from Tables 7 through 11. First, Japan, the US and Taiwan invest mainly in equity, while Hong Kong and Singapore concentrate mainly on investment loans. The proportion of accumulative equity investment to the total inflow of direct investment is as follows; Japan 66%, the US 77%, Taiwan 97%, Hong Kong 39%, and Singapore 14%. Second, equity investments in the 1980's expanded, particularly from Japan. Hong Kong and Taiwan are also growing rapidly as sources of equity investment. The increase in equity investment from Hong Kong is particularly noteworthy of its imminent return to China. On the other hand, equity investment from the US underwent a decline after 1984. Third, Japan became the largest source of loans as well as equity investment in the latter half of the 1980's, while investment from Hong Kong levelled off and Singapore marked a decrease after it had reached a peak in the first half of the 1980's. Finally, although investment loans consist of medium and long-term loans, those extended by Hong Kong and Singapore tend to be of the short-term type compared with those from Japan and the US. The accumulative total outflow of investment loans from these two countries accounted for 90% of the accumulative total inflow of loans.

4. Inflow of Foreign Direct Investment by Sector

According to Table 12, based on the net inflow of direct investment, the manufacturing sector accounted for the largest share, as seen by the following statistics: 32% of total investment between 1971 and 1986 was invested in manufacturing, followed by 20% in trade, 17% in mining, 16% in construction, and 10% in services. Between 1987 and 1988, 57% of total investment was centred on manufacturing, followed by 13% on trade, 10% on services, 8.8% on construction, and 8.5% on financial institutions. These figures confirm the heavy investment

Table 7
Inflow of Direct Investment from Japan

(Unit: Million Baht)

	Inflow			Outflow			Net Inflow		
	Equity	Loan	Total	Equity	Loan	Total	Equity	Loan	Total
1965-69	1,289.7	114.9	1,404.6	22.7	77.1	99.8	1,267.0	37.8	1,304.8
1970-74	1,885.9	742.3	2,628.7	41.7	202.7	244.4	1,844.2	539.6	2,383.8
1975-79	1,742.4	2,255.0	3,997.4	199.4	1,213.3	1,413.3	1,543.0	1,041.1	2,584.1
1980-84	6,149.0	4,241.4	10,390.4	224.3	1,798.8	2,046.2	5,924.7	2,442.6	8,367.3
1985-88	18,939.8	7,610.7	26,550.5	338.0	3,769.5	4,107.5	18,601.8	3,841.2	22,443.0
1970-88	28,717.1	14,849.4	43,567.0	803.4	6,984.9	7,811.4	27,913.7	7,864.5	35,778.2
1980	705.9	385.4	1,091.3	5.0	183.4	188.8	700.9	202.0	902.9
1981	1,190.8	392.2	1,583.0	46.7	129.3	177.8	1,144.1	262.9	1,407.0
1982	1,058.9	745.1	1,804.0	121.8	644.9	787.5	937.1	100.2	1,037.3
1983	1,438.0	1,253.3	2,691.3	11.4	248.0	259.5	1,426.6	1,005.3	2,431.9
1984	1,755.4	1,465.4	3,220.8	39.4	593.2	632.6	1,716.0	872.2	2,588.2
1985	1,518.7	753.8	2,272.5	125.6	612.9	738.5	1,393.1	140.9	1,534.0
1986	2,438.5	1,193.3	3,631.8	47.0	535.7	582.7	2,391.5	657.6	3,049.1
1987	4,255.8	708.4	4,964.2	10.8	1,684.7	1,695.5	4,245.0	-976.3	3,268.7
1988	10,726.8	4,955.2	15,682.0	154.6	936.2	1,090.8	10,572.2	4,019.0	14,591.2

Source: Compiled from the data of the Bank of Thailand.

Table 8
Inflow of Direct Investment from the United States

(Unit: Million Baht)

	Inflow			Outflow			Net Inflow		
	Equity	Loan	Total	Equity	Loan	Total	Equity	Loan	Total
1965-69	1,791.0	608.4	2,399.4	57.2	124.8	182.0	1,733.7	483.6	2,217.4
1970-74	3,131.4	975.4	4,106.8	202.1	609.4	811.5	2,929.3	366.0	3,295.3
1975-79	2,341.0	2,528.6	4,869.6	209.9	2,046.4	2,376.3	2,131.1	476.2	2,607.3
1980-84	8,929.3	1,952.2	10,881.5	414.1	1,482.9	1,926.5	8,515.2	469.3	8,984.5
1985-88	8,553.9	1,556.4	10,110.3	651.3	783.6	1,434.9	7,902.6	772.8	8,675.4
1970-88	22,955.6	7,012.6	29,968.2	1,477.4	4,922.3	6,549.2	21,478.2	2,084.3	23,562.5
1980	1,052.1	215.7	1,267.8	5.8	529.6	537.5	1,046.3	-313.9	732.4
1981	1,709.5	1,142.2	2,851.7	5.8	450.1	456.7	1,703.7	692.1	2,395.8
1982	1,362.3	121.2	1,483.5	199.8	426.4	639.9	1,162.5	-305.2	857.3
1983	1,341.9	115.4	1,457.3	170.0	21.5	204.4	1,171.9	93.9	1,265.8
1984	3,463.5	357.7	3,821.2	32.7	55.3	88.0	3,430.8	302.4	3,733.2
1985	2,381.5	510.8	2,892.3	451.0	53.7	504.7	1,930.5	457.1	2,387.6
1986	1,388.9	400.4	1,789.3	98.7	397.0	495.7	1,290.2	3.4	1,293.6
1987	1,911.3	266.7	2,178.0	95.1	267.3	362.4	1,816.2	-0.6	1,815.6
1988	2,872.2	378.5	3,250.7	6.5	65.6	72.1	2,865.7	312.9	3,178.6

Source: Compiled from the data of the Bank of Thailand.

Table 9
Inflow of Direct Investment from Taiwan

(Unit: Million Baht)

	Inflow			Outflow			Net Inflow		
	Equity	Loan	Total	Equity	Loan	Total	Equity	Loan	Total
1970-74	35.9	0.2	36.1	35.9	0.2	36.1			
1975-79	8.3		8.3	7.2	7.2	1.1			
1980-84	80.8	8.3	89.1	80.8	8.3	89.1			
1985-88	4,031.6	131.4	4,163.0	11.2	11.2	4,020.4	131.4	4,151.8	
1970-88	4,156.6	139.9	4,296.5	18.4	0	18.4	4,138.2	139.9	4,278.1
1980	1.9	1.9	1.9	1.9					
1981	11.9	11.9	11.9	11.9					
1982	1.4	0.6	2.0	1.4	0.6	2.0			
1983	27.5	0.8	28.3	27.5	0.8	28.3			
1984	38.1	6.9	45.0	38.1	6.9	45.0			
1985	170.6	170.6	170.6	170.6					
1986	132.6	132.6	132.6	132.6					
1987	685.5	3.8	689.3	2.1	2.1	683.4	3.8	687.3	
1988	3,042.9	127.6	3,170.5	9.1	9.1	3,033.8	127.6	3,161.4	

Source: Compiled from the data of the Bank of Thailand.

Table 10
Inflow of Direct Investment from Hong Kong

(Unit: Million Baht)

	Inflow			Outflow			Net Inflow		
	Equity	Loan	Total	Equity	Loan	Total	Equity	Loan	Total
1970-74	684.2	387.9	1,072.1	33.3	96.8	130.1	650.9	291.1	942.0
1975-79	810.0	2,621.9	3,431.9	186.9	2,850.3	3,037.2	623.1	-228.4	394.7
1980-84	2,801.6	5,930.9	8,732.5	266.9	5,212.5	5,479.4	2,534.7	718.4	3,253.1
1985-88	4,937.2	5,436.5	10,373.7	134.4	4,784.5	4,918.9	4,802.8	652.0	5,454.8
1970-88	9,233.0	14,377.2	23,610.2	621.5	12,944.1	13,565.6	8,611.5	1,433.1	10,044.6
1980	928.3	1,144.6	2,072.9	60.7	898.5	959.2	867.6	246.1	1,113.7
1981	208.5	704.4	912.9	6.4	583.2	589.6	202.1	121.2	323.3
1982	458.9	595.5	1,054.4	89.8	371.2	461.0	369.1	224.3	593.4
1983	530.1	1,037.8	1,567.9	93.3	603.7	697.0	436.8	434.1	870.9
1984	675.8	2,448.6	3,124.4	16.7	2,755.9	2,772.6	659.1	-307.3	351.8
1985	859.2	1,614.5	2,473.7	41.8	1,782.9	1,824.7	817.4	-168.4	649.0
1986	679.5	1,640.9	2,320.4	6.4	1,358.3	1,364.7	673.1	282.6	955.7
1987	971.1	406.8	1,377.9	4.6	577.1	581.7	966.5	-170.3	796.2
1988	2,427.4	1,774.3	4,201.7	81.6	1,066.2	1,147.8	2,345.8	708.1	3,053.9

Source: Compiled from the data of the Bank of Thailand.

Table 11
Inflow of Direct Investment from Singapore

(Unit: Million Baht)

	Inflow			Outflow			Net Inflow		
	Equity	Loan	Total	Equity	Loan	Total	Equity	Loan	Total
1970-74	244.1	361.0	605.1	41.5	120.9	162.4	202.6	240.1	442.7
1975-79	371.8	7,251.5	7,623.3	124.6	7,040.9	7,165.5	247.2	210.6	457.8
1980-84	1,503.3	14,683.0	16,186.3	67.3	13,533.0	13,600.3	1,436.0	1,150.0	2,586.0
1985-88	2,175.0	3,741.8	5,916.8	87.5	4,491.8	4,578.3	2,087.5	-750.0	1,337.5
1970-88	4,294.2	26,037.3	30,331.5	320.9	25,186.6	25,507.5	3,973.3	850.7	4,824.0
1980	227.2	3,533.9	3,761.1	6.7	3,477.1	3,483.8	220.5	56.8	277.3
1981	186.8	2,357.7	2,544.5	0.0	1,525.7	1,525.7	186.8	832.0	1,018.8
1982	236.8	2,461.8	2,698.6	25.6	3,060.5	3,086.1	211.2	-598.7	-387.5
1983	442.5	3,142.6	3,585.1	20.2	3,008.8	3,029.0	422.3	133.8	556.1
1984	410.0	3,187.0	3,597.0	14.8	2,460.9	2,475.7	395.2	726.1	1,121.3
1985	359.3	747.4	1,106.7	17.9	2,210.7	2,228.6	341.4	-1,463.3	-1,121.9
1986	446.7	675.4	1,122.1	4.6	714.4	719.0	442.1	-39.0	403.1
1987	743.6	356.9	1,100.5	61.0	504.0	565.0	682.6	-147.1	535.5
1988	625.4	1,962.1	2,587.5	4.0	1,062.7	1,066.7	621.4	899.4	1,520.8

Source: Compiled from the data of Bank of Thailand.

Table 12
Net Inflow of Foreign Direct Investment Classified by Business

(Unit: Million Baht)

	1971-74	1975-79	1980-84	1985-88	1971-86	1987-88	1971-88	1984	1985	1986	1987	1988
Financial Institutions	1,622.9	665.6	1,167.7	2,397.5	2,687.1	3,166.6	5,853.7	150.4	-1,279.3	510.2	442.8	2,723.8
Trade	1,308.9	1,977.1	5,520.2	7,651.0	11,671.4	-785.8	16,457.2	1,893.5	1,081.8	1,783.4	853.3	3,932.5
Construction	767.4	1,032.1	4,604.7	6,108.0	9,223.8	3,287.8	12,511.6	1,066.2	1,585.3	1,234.9	1,349.1	1,938.7
Mining & Quarrying	1,446.1	462.6	7,288.0	1,420.7	9,953.0	664.6	10,617.6	2,787.1	515.9	240.2	192.0	472.6
Oil exploration	1,362.6	306.2	6,457.7	1,316.7	8,792.9	650.3	9,443.2	2,654.8	430.0	236.4	251.3	399.0
Others	83.5	156.4	830.3	104.0	1,159.9	14.3	1,174.2	132.3	85.9	3.8	-59.3	73.6
Agriculture	25.1	-10.5	348.6	872.3	642.3	593.2	1,235.5	67.6	76.9	202.2	285.9	307.3
Industry	2,058.5	2,889.2	10,506.3	24,576.1	18,935.9	21,094.2	40,030.1	3,167.0	1,358.1	2,123.8	4,749.2	16,345.0
Food	281.9	243.0	314.4	2,347.8	1,521.0	1,666.1	3,187.1	105.8	394.8	286.9	436.6	1,229.5
Textiles	1,023.9	884.1	852.8	2,260.8	2,906.4	2,115.2	5,021.6	452.5	59.9	83.7	995.7	1,119.5
Metal based and Non-metallic	140.4	95.1	1,420.7	2,176.9	1,507.9	2,325.2	3,833.1	78.3	-125.7	-22.6	365.1	1,960.1
Electrical appliances	222.8	907.1	3,136.2	8,342.7	5,163.1	7,445.7	12,608.8	1,045.3	280.0	617.0	1,136.5	6,309.2
Machinery & Transport Equipment	50.9	255.1	990.6	904.2	1,313.7	887.1	2,200.8	119.9	32.0	-14.9	159.9	727.2
Chemicals	203.4	365.7	1,131.0	3,787.5	2,672.5	2,815.1	5,487.6	283.3	488.4	484.0	868.1	1,947.0
Petroleum Products	17.9	97.9	2,054.2	826.0	2,178.2	817.8	2,996.0	934.2	0	8.2	-15.8	833.6
Construction Materials	46.3	-117.9	47.6	76.8	19.7	33.1	52.8	5.8	38.3	5.4	6.3	26.8
Others	71.0	159.1	516.5	3,853.4	1,611.1	2,988.9	4,600.0	141.9	190.4	674.1	796.8	2,192.1
Services	447.8	768.9	3,051.9	5,572.2	6,145.5	3,695.3	9,840.8	506.2	1,063.5	813.4	1,171.4	2,523.9
Transportation & Travel	209.5	613.9	1,195.7	1,082.2	2,472.6	628.7	3,101.3	185.1	197.9	255.6	220.6	408.1
Housing & real estate	91.2	49.7	350.5	1,567.0	839.6	1,218.8	2,058.4	94.6	305.5	42.7	328.2	890.6
Hotels & Restaurant	79.7	18.0	449.3	976.6	870.2	653.4	1,523.6	96.7	222.9	100.3	94.7	558.7
Others	67.4	87.3	1,056.4	1,946.4	1,963.1	1,194.4	3,157.5	129.8	337.2	414.8	527.9	666.5
Total	7,676.7	7,785.0	28,486.8	48,597.8	59,258.8	37,287.5	96,546.3	9,638.0	4,402.2	6,908.1	9,043.7	28,243.8

Source: Bank of Thailand.

Table 13
Inflow of Equity Investment Classified by Business

	1970-74	1975-79	1980-84	1985-88	1987	1988	1970-88	1970-86	1987-88
Financial Institutions	1,329.0	915.1	1,189.1	4,892.4	1,103.6	2,532.8	8,325.6	4,689.2	3,636.4
Trade	1,417.6	1,722.7	4,064.5	7,583.0	2,001.1	3,359.4	14,787.8	9,427.3	5,360.5
Construction	808.8	690.9	4,303.6	5,989.3	1,337.5	1,905.2	11,792.6	8,549.9	3,242.7
Mining & Quarrying	1,430.6	403.8	7,488.6	1,492.0	298.0	430.0	10,815.0	10,087.0	728.0
Agriculture	7.9	9.7	295.8	605.3	179.5	294.5	918.7	444.7	474.0
Industry	1,614.0	2,197.2	6,249.1	20,936.2	4,633.1	12,341.5	30,996.5	14,021.9	16,974.6
Food	90.9	172.4	695.2	2,286.3	481.5	951.8	3,244.8	1,811.5	1,433.3
Textiles	753.1	248.6	215.6	2,150.9	989.3	1,068.5	3,368.2	1,310.4	2,057.8
Metal based and Non-metallic	164.3	124.0	453.1	1,189.9	261.5	757.1	1,931.3	912.7	1,018.6
Electrical appliances	201.8	830.8	2,713.1	7,474.1	1,041.0	5,408.8	11,219.8	4,770.0	6,449.8
Machinery & Transport Equipment	44.5	185.8	707.2	961.8	148.3	695.5	1,899.3	1,055.5	843.8
Chemicals	246.5	398.3	710.3	3,179.2	910.9	1,397.1	4,534.3	2,226.3	2,308.0
Petroleum Products	0.5	49.6	265.7	20.3	8.8	3.3	336.1	324.0	12.1
Construction Materials	24.8	26.7	15.4	76.8	13.7	28.5	143.7	101.5	42.2
Others	87.6	161.0	473.5	3,596.5	778.1	2,030.9	4,318.6	1,509.6	2,809.0
Services	471.3	1,130.1	2,999.5	4,841.8	1,073.5	2,204.8	9,442.7	6,164.4	3,278.3
Transportation & Travel	252.1	961.2	1,103.9	1,025.4	180.2	423.4	3,342.6	2,739.0	603.6
Housing & real estate	77.0	54.8	291.5	1,190.9	299.0	789.9	1,614.2	525.3	1,088.9
Hotels & Restaurant	75.7	21.2	406.2	828.9	94.0	403.9	1,332.0	834.1	497.9
Others	66.5	92.9	1,197.9	1,796.6	500.3	587.6	3,153.9	2,066.0	1,087.9
Total	7,079.2	7,069.5	26,590.2	46,340.0	10,626.3	23,068.2	87,078.9	53,384.4	33,694.5

Source: Bank of Thailand Monthly Bulletin, March 1989 (in Thai).

in manufacturing in this two-year period. Within the manufacturing sector, investment between 1971 and 1986 was poured into electrical appliances, textiles, chemicals, petroleum products, and food in descending order, their respective share of total investment being 27%, 15%, 14%, 12% and 8%. Between 1987 and 1988, investments in the manufacturing sector ranked as follows: electrical appliances, chemicals, metal and non-metallic products, textiles, and food, with a respective share of total investment of 35%, 13%, 11%, 10% and 8%. This indicates the heavy investment in the electrical appliance industry, although investment in miscellaneous aspects of the manufacturing industry has also grown considerably.

A similar trend may be seen from the inflow of equity investment (see Table 13). Between 1970 and 1988, investment was concentrated mainly in manufacturing, trade, construction, mining, and services, in that order. But the manufacturing sector's share was rather small compared with that of net inflow, a factor related to the outflow of equity investment and direct investment loans. Since the outflow of equity investment was not so large, the difference depended on the amount of direct investment loans. Between 1987 and 1988, the industries in the manufacturing sector with a comparatively large inflow of investment loans were food, textiles, metal and non-metallic products, electrical appliances, chemicals, and petroleum products.

II Major Investing Countries and Sectors in which They Invest

1. Sectors in which Japan and US Have Invested

As mentioned above, the combined share of direct investment from Japan and the US accounts for 61% of the total in terms of net inflow. This share reached 75% in the latter half of the 1960's, when Thailand was still at the stage of launching its industrialization drive, but declined afterwards. Nevertheless, it still maintained a more than 50% share of total foreign investment, accounting for 66% in the 1970's, and 53% in the first half of the 1980's, rising to 64% in the latter half of the 1980's due to the large increase in Japanese investment. Considering the importance of these two countries, the distribution of Japanese and US investment should be examined.

As for investment from Japan, the manufacturing sector ranks first, followed by the construction sector. Heavy investment in the construction industry is one of the features of Japanese investment. Investment in construction was particularly prevalent in the first half of the 1980's; its amount at that time exceeding that of the manufacturing sector. Between 1987 and 1988, investment was concentrated in the manufacturing sector, with 69% invested in manufacturing and 12% in construction. As a result, between 1971 and 1988, the manufacturing and construction sectors accounted for 52% and 21% respectively of total Japanese investment. The proportion of Japanese investment to total foreign investment by sector is as much as 46% in the manufacturing sector and 59% in the construction sector.

Japanese investment in the manufacturing sector covers a wide range of products, with the exception of construction materials. During 1971 and 1986, the Japanese invested mainly in textiles, electrical appliances, metal and non-metallic products, chemicals, machinery and transport equipment, in that order. Between 1987 and 1988, the following major advances could be observed: electrical appliances accounted for 44% of the total investment in manufacturing; this was accompanied by a sizable investment in the petrochemical industry,

Table 14
Net Inflow of Direct Investment from Japan

(Unit: Million Baht)

	1971-74	1975-79	1980-84	1985-88	1971-86	1987-88	1971-88	1984	1985	1986	1987	1988
Financial Institutions	261.4	266.1	237.7	1,206.3	845.2	1,126.3	1,971.5	1.0	15.6	64.4	447.7	678.6
Trade	569.0	440.3	2,019.7	2,195.6	4,439.6	785.0	5,224.6	820.3	354.1	1,056.5	-370.3	1,155.3
Construction	113.4	339.1	3,053.3	3,872.3	5,168.4	2,209.7	7,378.1	779.6	799.6	863.0	886.4	1,323.3
Mining & Quarrying	12.7	5.9	8.6	8.4	29.3	6.3	35.6	1.3	0	2.1	0	6.3
Oil exploration	7.6	5.5	8.1	2.1	23.3	0	23.3	1.3	0	2.1	0	0
Others	5.1	0.4	0.5	6.3	6.0	6.3	12.3	0	0	0	0	6.3
Agriculture	20.0	-17.9	83.8	447.7	235.0	300.2	535.2	42.2	4.8	142.7	124.1	176.1
Industry	1,026.5	1,302.9	2,813.7	13,258.1	6,009.5	12,391.7	18,401.2	930.2	163.0	703.4	1,873.8	10,517.9
Food	227.8	110.0	-314.3	484.4	197.0	310.9	507.9	-7.6	117.8	55.7	-13.9	324.8
Textiles	471.1	750.4	632.9	430.8	1,950.9	334.3	2,285.2	420.1	22.8	73.7	17.5	316.8
Metal based and												
Non-metallic	41.4	27.6	1,081.7	1,608.8	899.2	1,860.3	2,759.5	-58.6	-146.8	-104.7	224.1	1,636.2
Electrical appliances	91.8	76.5	791.4	5,947.6	1,396.7	5,510.6	6,907.3	588.4	117.3	319.7	826.7	4,683.9
Machinery & Transport												
Equipment	29.1	105.2	352.6	792.8	457.4	822.3	1,279.7	-54.1	7.2	-36.7	156.2	666.1
Chemicals	145.3	174.1	229.5	729.1	627.0	651.0	1,278.0	42.3	37.0	41.1	297.2	353.8
Petroleum Products	0.3	14.6	2.8	2,029.7	17.7	2,029.7	2,047.4	0	0	0	0	2,029.7
Construction Materials	12.8	0.4	8.0	5.8	26.6	0.4	30.0	0	5.3	0.1	-2.2	2.6
Others	6.9	44.7	29.1	1,229.1	437.6	872.2	1,309.8	-0.3	2.4	354.5	368.2	504.0
Services	58.7	246.1	150.4	1,454.6	869.0	1,040.8	1,909.8	15.5	196.9	216.9	307.0	733.8
Transportation & Travel	34.5	220.6	84.7	293.1	448.1	184.8	632.9	1.4	74.3	34.0	35.1	149.7
Housing & real estate	10.5	9.3	0.2	451.6	24.4	447.2	471.6	0	0	4.4	176.4	270.8
Hotels & Restaurant	7.8	3.3	0	240.9	20.5	231.5	252.0	0	8.1	1.3	0	231.5
Others	5.9	12.9	65.5	469.0	376.0	177.3	553.3	14.1	114.5	177.2	95.5	81.8
Total	2,061.7	2,584.1	8,367.2	22,443.0	17,596.0	17,860.0	35,456.0	2,588.1	1,534.0	3,049.0	3,268.7	14,591.3

Source: Bank of Thailand.

Table 15
Net Inflow of Direct Investment from U.S.A.

(Unit: Million Baht)

	1971-74	1975-79	1980-84	1985-88	1971-86	1987-88	1971-88	1984	1985	1986	1987	1988
Financial Institutions	429.0	348.8	-558.1	488.3	807.7	35.8	843.5	18.1	437.6	14.9	-115.3	151.1
Trade	330.9	754.7	832.7	1,926.3	2,507.7	1,336.9	3,844.6	333.5	264.7	324.7	461.7	875.2
Construction	385.0	61.9	615.3	418.4	1,255.0	225.6	1,480.6	39.3	74.4	118.4	135.2	90.4
Mining & Quarrying	1,408.7	271.5	4,432.1	845.1	6,489.4	468.0	6,957.4	2,713.9	256.0	121.1	206.9	261.1
Oil exploration	1,339.9	224.0	4,449.2	711.5	6,322.0	402.6	6,724.6	2,826.3	195.4	113.5	176.5	226.1
Others	68.8	47.5	-17.1	133.6	167.4	65.4	232.8	-112.4	60.6	7.6	30.4	35.0
Agriculture	2.9	1.8	28.8	223.4	125.1	131.8	256.9	8.2	48.8	42.8	71.3	60.5
Industry	252.8	696.0	2,662.3	2,939.9	4,688.8	1,862.2	6,551.0	436.0	676.3	401.4	801.7	1,060.5
Food	17.6	28.5	232.2	553.3	528.5	303.3	831.8	28.7	106.0	144.2	97.7	205.6
Textiles	70.4	20.4	20.1	395.8	116.0	390.5	506.5	1.9	3.7	1.6	339.4	51.1
Metal based and Non-metallic	27.4	20.2	-64.5	82.5	-6.2	71.8	65.6	9.2	-0.1	10.8	29.6	42.2
Electrical appliances	117.9	484.9	1,823.7	630.5	2,658.3	428.7	3,087.0	309.7	173.1	28.7	114.2	314.5
Machinery & Transport Equipment	3.1	115.6	68.8	67.6	218.5	36.6	255.1	44.4	25.9	5.1	3.	33.3
Chemicals	-6.2	15.9	41.0	524.0	470.5	122.2	592.7	15.2	298.2	121.6	87.9	34.3
Petroleum Products	9.1	83.2	416.7	1.3	509.0	1.3	510.3	0	0	0	1.2	0.1
Construction Materials	6.0	-128.0	0	29.0	-122.9	29.0	-93.9	0	0	0	8.2	20.8
Others	8.4	25.5	124.3	637.7	317.1	478.8	795.9	26.9	69.5	89.4	102.2	258.6
Services	134.1	354.6	971.9	1,834.1	2,360.7	934.0	3,294.7	184.2	629.7	270.4	254.2	679.8
Transportation & Travel	87.3	309.6	295.3	339.9	962.4	123.7	1,086.1	21.0	131.6	138.6	46.5	77.2
Housing & real estate	-2.5	0	90.5	411.2	338.6	106.6	499.2	85.6	244.7	5.9	3.1	157.5
Hotels & Restaurant	12.1	0.7	68.6	224.1	248.6	56.9	305.5	25.0	166.1	1.1	10.7	46.2
Others	37.2	44.3	517.5	804.9	811.1	592.8	1,403.9	42.6	87.3	124.8	198.9	398.9
Total	2,943.4	2,489.3	8,984.5	8,675.5	18,216.4	4,994.3	23,210.2	3,733.2	2,387.5	1,293.7	1,815.7	3,178.6

Source: Bank of Thailand.

a sector in which the Japanese had shown little interest in the past, as well as by an increase in investment in metal products, machinery and transport equipment, and the chemical industry. As a result, each sector's share of the total amount invested in manufacturing up to 1988 changed; in 1988 they ranked as follows: electrical appliances, metal and non-metallic products, textiles, petroleum products, machinery and transport equipment, and chemicals.

As far as US investment is concerned, mining, manufacturing, and trade are the main sectors in which the Americans have invested. Extensive investment in the mining sector, spurred by the development of oil and natural gas, is a special feature of US investment, exceeding that in manufacturing. Investment in mining accounted for 30% of all US investment during 1971 and 1988, while manufacturing accounted for 28%. The proportion of US investment in total foreign direct investment, in terms of sector, is 66% in mining and 16% in manufacturing. In the manufacturing sector, special attention was paid to electrical appliances, which accounted for 57% of US investment in manufacturing between 1971 and 1986. Investment in the first half of the 1980's focussed mainly on the production of integrated circuits. During 1987 and 1988, investment in the manufacturing sector covered quite a wide range of products, such as electrical appliances, textiles and food, while investment in various other sectors of the manufacturing industry also increased. Thus, compared with the total investment in manufacturing up to 1988, the proportion invested in electrical appliances underwent a decline, falling to 47%.

2. Investment Patterns in 1988

The investment patterns of five major countries are shown in Table 16. Although compiled from a list of projects promoted by the BOI, the total number of projects in which each country engaged, with the exclusion of Hong Kong, is different from that of Table 4. It should be noted that this figure represents the number of projects rather than the number of firms, and multiple projects undertaken by the same company are counted separately. In addition, projects designed to expand existing firms are also included; the proportion of this latter type to the total number of projects is as follows; Japan 27%, the US 18%, the UK 30%, Taiwan 5%, and Hong Kong 21%. Like Table 4, projects in which the investment originates from more than one country, are double-counted. In the case of a Thai-Japanese-British joint venture, for example, the project would be counted as both Japanese and British. Therefore, the total number of employees, the average project's size of a company's work force, and average amount of total investment will be significantly affected, especially in the case of countries with only a small number of projects.

Taiwan had the largest number of Thai employees, followed by Japan, the US, Hong Kong, and the UK. The average size of the work force per project is over 200 persons for each of the countries mentioned. Thai standard any company employing such a large work force would be classified as "big". Hong Kong and the US employ a large work force - 381 and 358 persons each - indicating the extent of their investment in labour-intensive industries. Taiwan has also made a considerable investment in labour-intensive industries, but the average size of each company's work force is rather small, 250 persons, compared with the two countries previously mentioned. As regards Japan and the UK, the average number of

Table 16
Promoted Foreign Investment in 1988

(1) Distribution of Employment Size

	No. of projects	More than 400	200-399	50-199	10-49	1-9	0 ^{a)}	Total Employment	Employment Per Project
Japan	264	52(20%)	58(22%)	117(44%)	36(14%)		1(0.4%)	69,108	217
USA	104	22(21%)	31(30%)	34(33%)	17(16%)			37,202	358
UK	43	3(7%)	16(37%)	18(42%)	5(12%)		1(2%)	9,189	214
Taiwan	303	55(18%)	107(35%)	117(39%)	24(8%)			75,671	250
Hong Kong	86	20(23%)	28(33%)	27(31%)	10(12%)	1(1%)		32,784	381

(2) Distribution of Investment Size

	No. of projects	Total Investment per Project (Mill.B)	Total Investment (Mill.B)	More Than 500 (Mill.B)	Distribution of Investment Size		
					100-499 (Mill.B)	20-99 (Mill.B)	Less Than 20 (Mill.B)
Japan	264	76,781	291	32(12%)	89(34%)	109(41%)	34(13%)
USA	104	16,745	161	8(8%)	24(23%)	55(53%)	17(16%)
UK	43	8,367	195	3(7%)	6(14%)	24(56%)	10(23%)
Taiwan	303	20,936	69	8(3%)	32(11%)	154(51%)	109(36%)
Hong Kong	86	10,244	119	3(4%)	21(24%)	48(56%)	14(16%)

(Continued)

(3) Pattern of Ownership

	100% Foreign	Joint Venture with Thai	Joint Venture with Other Foreign	No Capital Increase ²⁾
Japan	47(18%)	173(66%)	13(5%)	31(12%)
USA	8(8%)	70(67%)	10(10%)	16(15%)
UK	1(2%)	29(67%)	5(12%)	8(19%)
Taiwan	78(26%)	203(57%)	15(5%)	7(2%)
Hong Kong	5(6%)	67(78%)	3(4%)	11(13%)

(4) Distribution of Export Ratio

	100%	80-99%	1-79%	0	Unknown	Total
Japan	123(47%)	100(38%)	20(8%)	19(7%)	2(1%)	264
USA	57(55%)	24(23%)	11(11%)	11(11%)	1(1%)	104
UK	22(51%)	10(23%)	1(2%)	10(23%)	43	
Taiwan	194(64%)	71(23%)	16(5%)	22(7%)		303
Hong Kong	39(45%)	24(28%)	11(13%)	12(14%)		86

(Remark): ¹⁾ Equipment expansion project with no increase of worker.

²⁾ Equipment expansion project without capital increase.

Shareholding ratio is not shown in BoI data.

(Source): Compiled from BoI promoted project list by country.

employees per project is almost the same: 217 and 214 persons respectively. As for the size of the work force in terms of distribution, more than half of all US, Hong Kong and Taiwanese projects employ over 200 persons, while Japan and the UK employ, on average, between 50 and 199 persons.

In contrast to the size of the work force in their employ, the Japanese account for the largest investment - 291 million baht - in terms of the total amount invested per project. They are followed by the UK, with an investment of 195 million baht, the US with 161 million baht, Hong Kong with 119 million baht, and Taiwan with 69 million baht. Compared with the other countries, the size of the Taiwanese investment is relatively small. As for the distribution of each country's investment, Japan invested 12% of its total investment in large-scale projects, which accounted for an investment of more than 500 million baht, and 34% between 100 and 500 million baht in medium-scale projects, a relatively large investment compared with that of other countries. This is partly because many Japanese projects are in industries engaged in the production of machinery and related products. As for investment from the other four countries, small-scale projects representing an investment of between 20 and 100 million baht accounted for more than 50% of their total number of projects. Taiwan placed particular emphasis on relatively small-scale projects; some of these projects, representing an investment of less than 20 million baht, accounted for 36% of Taiwanese projects. Based on the distribution of investment in terms of size, Hong Kong's overall share should be greater than that of the UK. Unfortunately, however, this is not the case. This is because, although the number of UK - funded projects is relatively small, the petrochemical project on the Eastern Seaboard, representing an investment of 4,500 million baht, boosted the country's average investment. As a result, the UK surpassed Hong Kong in terms of overall investment. Without this project, the average size of investment from the UK would amount to a mere 92 million baht, comparatively small in scale.

As mentioned above, the scale of a country's investment and the size of the work force it employed depended largely on which field of industry that country invested in. This will be discussed later in more detail. In sum, the Japanese investment is large in terms of the amount invested, but relatively small in terms of the size of the work force employed by Japanese companies. Taiwan, however, presents the exact opposite picture in that it has tended to concentrate on labour-intensive industries which require comparatively little investment to operate.

As for the structure of ownership, in terms of each country's share of the total number of wholly foreign-owned projects, Taiwan ranks highest among the five countries, with 26% followed by Japan with 18%. As regards each of these countries, joint ventures in which Thai capital has been invested predominate, accounting for two-thirds of the total, though with Hong Kong the proportion is as high as 78%. The UK and the US, on the other hand, would appear to prefer joint ventures but without Thai partners. Given the size of investment and structure of ownership, it can be said, that in general, wholly foreign-owned projects constitute a relatively small investment.

The average investment in wholly foreign-owned projects is about half that in joint ventures. In the first half of 1989, in terms of the number of applications, the average

investment in wholly foreign-owned projects was even smaller than that in wholly Thai-owned projects. It appeared that small and medium-scale firms preferred 100% foreign-owned projects.

As for the distribution of exports, projects exporting more than 80% of their output accounted for over 70% of the total number of projects undertaken by each country. Japan accounted for 85%, and Taiwan 87%. Typically, Taiwanese investors relocate their production and export base, their projects exporting 100% of their out-put; this type accounted for 64% of the total, the biggest proportion of all the countries investing in Thailand. Furthermore, the industrial sector in which the Taiwanese invested consisted mainly of miscellaneous goods, thus leading to the competition with Thai firms. On the other hand, the proportion of industry oriented towards the local market constitutes a relatively large part of investment from the UK, Hong Kong and the US.

In relation to the above-mentioned structure of ownership, Table 17 details changes in the shareholding ratio in terms of the number of firms in operation. Owing to the increase in interest which both wholly foreign-owned firms and joint ventures in which foreigners owned the majority of shares have shown in export-oriented industries, each country has increased its share in terms of registered capital. To take the case of Japan, in 1982, the shareholding ratio among those firms in operation and those that had received promotional certificates but were not yet in operation was 39.7%. The proportion increased gradually, although from 1987 to 1988 there was a sharp rise in the shareholding ratio in terms of the number of firms in operation. The Japanese shareholding ratio among the 40 firms which began operating in 1988 reached as high as 78.7%. This indicated that most of these firms were owned entirely by Japanese or that Japanese investors owned a more than 80% majority of the shares. As a result, the Japanese shareholding ratio in 1988 was over 50%, making it unique among the seven countries. On the other hand, the ratios of shares held by the US and Singapore decreased. The shareholding ratio of the UK, Taiwan and Singapore was very low, at the level of 20%. South Korea had no firms planning to start up operations during 1986 and 1988.

As for those firms which had received promotional certificates but were not yet operational at the end of 1988, the shareholding ratio of foreigners was higher than that of firms already in operation. South Korea marked quite a high ratio: 78.5%. Japan achieved a ratio of 58.7%, a decline of about 20% over that of 1988, but still higher than that of firms in operation. In 1988, the ratio of US firms increased, climbing up to 50.1%. To sum up, the shareholding ratio of foreign capital will rise even further in 1989, while that of Japan and Korea will surpass 50%.

In terms of industry, there is a special feature regarding the structure of ownership. Every country, with the exclusion of Taiwan, put the majority of its investment, more than 50%, in machinery and the electrical equipment industry. In the case of firms already in operation, Hong Kong's share in this sector accounted for 87% while Japan accounted for 74%. At 51%, Singapore's share was the lowest among the six countries. Taiwan's share, however, was a mere 37%. Other than machinery and electrical equipment, the sectors of the manufacturing industry in which foreigners owned a majority share consist mainly of the

Table 17
Ownership Pattern of Promoted Firms by Country

Firms in Operation															Firms received certificates but not yet in operation				
End of 1987					End of 1988					End of 1988									
Registered Capital					Registered Capital					Registered Capital									
No. of Firm	Amount (Mill.B)	Country of Origin (%)	Other Foreign (%)	Thai (%)	No. of Firm	Amount (Mill.B)	Country of Origin (%)	Other Foreign (%)	Thai (%)	No. of Firm	Amount (Mill.B)	Country of Origin (%)	Other Foreign (%)	Thai (%)					
Japan	193	8,356	45.7	1.9	52.4	233	12,153	56.0	3.3	40.7	179	10,181	58.7	3.5	37.8				
USA	79	3,261	38.4	8.5	53.1	88	3,868	37.3	10.2	52.5	54	2,559	50.1	19.6	30.3				
UK	57	3,623	18.5	5.5	76.0	69	4,089	20.8	6.8	72.4	33	1,896	30.1	14.6	55.3				
Taiwan	123	3,352	15.3	7.3	77.4	144	3,923	20.0	7.6	72.4	153	3,738	46.8	4.6	48.6				
Hong Kong	70	2,843	29.5	10.6	59.9	87	4,112	32.2	10.8	57.0	54	1,590	38.6	12.7	48.7				
Singapore	32	1,883	20.8	23.8	55.4	39	2,240	19.3	25.5	55.2	34	1,939	26.9	28.5	44.6				
S.Korea	6	90	41.0	5.8	53.2	6	90	41.0	5.8	53.2	12	282	78.5	5.1	16.4				

Remarks: Figures for Firms in Operation are questionnaire returns. Figures for Firms receiving certificates are from project proposals.

Source: BOI.

chemical industry, in which the US owned a 52% share, and various other types of manufacturing, in which Japan owned a 55% share. The fact that foreign firms invest predominantly in machinery and the electrical equipment industry reflects the level of industrialization in Thailand.

3. Industries in which the Six Countries Invested

Table 18 compares the number of Japanese investments as well as their amount classified according to industry. The statistics cover the number of firms in operation as of the end of 1982 and 1988 as well as the firms that had received promotional certificates but were not yet operational. At the end of 1982, machinery and electrical equipment ranked first, with 49 firms engaged in this type of business; this was followed by other types of manufacturing, agricultural products and commodities, mineral metal and ceramics. Other types of manufacturing include the textile industry which employed as many as thirty thousand workers. At the end of 1988, 143 firms were engaged in other manufacturing industries, 3.8 times as many as in 1982. This was followed by machinery and electrical equipment in which 133 firms were engaged, 2.7 times as many as there were six years previously, agricultural products and commodities - 49 firms, 1.7 times as many; mineral metal and ceramics - 47 firms, a two-fold increase, and chemicals - 30 firms, 1.4 as many as in 1982.

Table 19 contains data on the number of BOI-approved projects in 1988 classified by industry. Japanese investments accounted for 38% of the total number of machinery and electrical equipment projects and 33% in other manufacturing industries. Other countries, especially Taiwan, Hong Kong and South Korea, invested mainly in other types of manufacturing, which accounted for more than 50% of the total number of projects. Ranked second, in terms of US and South Korean investment, is machinery and electrical equipment, while agricultural products and commodities in UK, Taiwan and Hong Kong investment.

The following industries attracted the largest number of projects from each country in 1988 in terms of the number of applications and applications approved by the BOI.

Japan

Applications; electric and electronics parts: 91, metal products: 40, processed food: 34, machinery and machine parts: 29, plastic products: 27, engine parts: 21, petrochemical products: 15, sporting goods: 12, rubber products 11; and textiles 8.

Approved; electric and electronics parts: 67, processed food: 24, plastic products: 21, machinery and machine parts: 20, automobile parts: 15, sporting goods and toys 10, watches and watch parts: 6, rubber products: 6, para rubber-tree furniture: 5, and textiles: 5.

United States

Applications; electronics parts: 27, rubber gloves: 17, metal products: 11, petrochemical products: 9, chemicals: 7, ceramics: 6, processed food: 5, sporting goods and toys: 4, plastic products: 5, and concentrated latex: 5.

Table 18
Promoted Investment from Japan by Industry

	1982			1988		
	No. of Firms	Total Investment (Mill.B)	No. of Employee	No. of Firms	Total Investment (Mill.B)	Registered Capital (Mill.B)
Agricultural products and commodities	29	3,070	9,410	49	4,616	1,473
Mineral metal and ceramics	24	4,450	6,503	47	11,826	2,440
Chemical and chemical products	21	7,200	4,678	30	11,705	2,061
Mechanical and electrical equipment	49	10,500	15,182	133	42,123	8,970
Other products	38	8,590	33,947	143	21,818	7,009
Services	5	550	1,195	10	1,606	381
Total	166	34,360	70,915	412	93,694	22,334
						57.2

Remark: Combined figure of firms in operation and firms receiving promotion certificates but not yet in operation.

Source: Compiled from data of B.O.I.

Table 19
Approved Projects by Country and by Industry in 1988

	Agricultural Products and commodities	Mineral metal and ceramics	Chemical and chemical products	Mechanical & electrical equipment	Other products	Services	Total
Japan	35 (13%)	21 (8%)	15 (6%)	101 (38%)	88 (33%)	4 (2%)	264
USA	24 (23%)	5 (5%)	7 (7%)	27 (26%)	39 (38%)	1 (1%)	103
UK	12 (28%)	2 (5%)	3 (7%)	4 (9%)	20 (47%)	2 (5%)	43
Taiwan	66 (22%)	18 (6%)	7 (2%)	53 (17%)	157 (52%)	2 (1%)	303
Hong Kong	22 (26%)	1 (1%)	5 (6%)	9 (10%)	48 (56%)	1 (1%)	86
S. Korea	3 (8%)	4 (11%)	1 (3%)	10 (28%)	18 (50%)	0	36

Source: B.O.I.

Approved; electronics parts: 21, rubber gloves: 16, prawn culture: 6, concentrated latex: 6, jewelry and ornaments: 4, toys: 4, chemicals: 4, textiles: 4, rubber products: 3, metal products: 3, and plastic products: 3.

United Kingdom

Applications; electronics parts: 6, toys and sporting goods: 3, leather goods: 2, jewelry and ornaments: 3, processed food: 2, and rubber gloves: 2.

Approved; rubber gloves: 4, prawn culture: 4, toys and sporting goods: 3, leather goods: 2, and jewelry and ornaments: 2.

Taiwan

Applications; electric and electronics parts: 54, rubber gloves: 37, plastic products: 36, toys and sporting goods: 26, metal products: 20, concentrated latex: 19, sports shoes and accessories: 13, processed food: 11, and prawn culture 10.

Approved; electric and electronics parts: 38, rubber gloves: 33, toys and sporting goods: 24, plastic products: 22, concentrated latex: 18, sports shoes: 15, metal products: 14, bamboo chopsticks: 10, prawn culture: 9, and livestock feed: 9.

Hong Kong

Applications; rubber gloves: 13, electric and electronics parts: 12, toys and sporting goods: 11, plastic products: 8, chemicals: 7, concentrated latex: 7, textiles: 6, prawn culture: 5, livestock feed: 3, and hotels: 3.

Approved; rubber gloves: 10, toys and sporting goods: 10, electric and electronics parts: 8, concentrated latex: 6, prawn culture: 5, para rubber-tree furniture: 4, plastic products: 4, and chemicals: 3.

Korea

Applications; toys and sporting goods: 9, electric and electronics parts: 6, metal products: 4, chemicals 2, concentrated latex: 2, rubber gloves: 2, and plastic products 2.

Approved; toys and sporting goods: 7, electric and electronics parts: 6, textiles: 4, plastic products: 3, metal products: 2, and concentrated latex: 2.

Japanese investment is concentrated mainly in the following sectors: electric and electronics parts, machinery and machine parts, automobile parts, metal products, engine parts, though it also covers a wider range of items such as precision machinery, processed food and other miscellaneous industrial products. In case of the US, electronics parts, chemicals, metal products, petrochemical products, and rubber products constitute the major industries attracting US investment. Apart from electric and electronics parts, Taiwan concentrated on agricultural products and other miscellaneous goods. Similar trend was observed in investment from Hong Kong.

III Development of Investment Promotion Policy

1. Development of Investment Promotion Policy Between 1987 and 1989

The Thai economy achieved a high growth rate of 8.4% in 1987, and 11.0% in 1988, and a growth rate of 10% is predicted in 1989, a double-digit growth for two consecutive years. Moreover, the medium-term economic forecast predicts a favorable rate of growth. Forecasts announced during the first half of 1989 anticipated an average growth rate of about 7.5% during the first half of the 1990's. However, the forecast made by the Thailand Development Research Institute at the end of 1989 predicted a somewhat higher growth rate of 9.9% in 1990, 9.2% in 1991, 9.0% in 1992, anticipating that, on average, an average growth rate of between 8% and 10% would be recorded in the first half of the 1990's, which suggests the prevailing optimism regarding the country's economic development in the near future.

Amid the anticipation of a high economic growth rate, there were active moves in 1988 and 1989 to review the nation's investment policy. According to the argument that prevailed prior to the first half of 1989, the Thai economy had been developing satisfactorily: since a number of foreign firms were keen to invest in Thailand, it seemed like an opportune moment to develop the policy, utilizing tax incentives as a means of dispersing investment throughout the provinces and introducing foreign capital selectively into the field of industry, something which Thailand is really in need of. The current guidelines for promoting investment target the following: export-oriented industries; industries which use local raw materials; industries which expand the local industrial base through the development of supporting industries; industries which contribute towards enhancing local technological capabilities, and industries located in the provinces. Based on the above policy, revisions to the criteria for promoting investment were already made in September 1987, a trend that has become more pronounced since the establishment of the Chatchai Government in August 1988. According to the Minister of the Office of the Prime Minister Mr. Korn, Thailand had graduated, over the last 30 years, to the stage of an open-door policy regarding foreign capital and is now entering the second stage of industrialization. The policy, in 1989 and 1990, as regards attracting foreign investment, can be summarized as follow:

In 1989:

(1) Despatch missions to attract investors from target countries. Over the past 30 years, Thailand has been sitting behind a desk waiting for investors. From now on, however, the BOI will contact potential investors abroad, targeting the US and European countries in particular, weighting to Europe 70% and US 30%.

(2) Selection of target industries for investment, including electronics parts, automobile parts, chemical products, and agro-industries. Electronics parts and automobile parts are important elements in the drive to attract foreign capital.

(3) Promotion of projects located outside the Bangkok Metropolitan Area.

(4) Improvements in the institutional investment climate.

(5) Increase participation of Thai capital in foreign-owned projects.

(6) Set targets of 1500 applications and 1200 approvals.

The policy objective of (1) is to attract investors from countries which import goods from Thailand in order to avoid trade conflicts with those countries as well as to offset the increase in Japanese investment. Problems concerning trade conflicts will be discussed by Mr. Samart in Chapter 5. As for investment from Japan, Investment News published by the BOI (in Thai, February 1989) stated that there was no need to extend any more invitations because the drive to attract Japanese investment in 1987 had achieved great success and there were still many firms planning to invest in Thailand, thereafter merely waiting for firms to send in their applications would be enough. As for (3), regional offices of the BOI were set up in the Northeast, the South and the North. Measures related to (4), aimed at improving the investment climate, focus mainly on ways to support firms that have received promotional privileges after the introduction of the value-added tax. Other measures aimed at supporting foreign investors were as follows: granting approval for foreigners to purchase residential units in condominiums equal to 40% of its total working space; the granting of residence permits; granting of approval to purchase land near their factory for the construction of residential units for their staff members; the promotion of development projects in which foreigners can rent space to set up factories inside industrial estates.

In the case of persons wishing to make a direct investment, residence permits could be sought on the condition that the amount of the investment exceed 10 million baht and that each foreign investor hold more than 25% of the equity based on the amount of registered capital, and so on. The latter two measures were for investors from Hong Kong, Taiwan and South Korea. Many investors from these NIES tend to set up factories in industrial estates and thus face traffic problems travelling between their home and factory. Although granting them the right to buy land within 50 km of the factory to build housing for their staff was meant to solve this problem, only one application was submitted between August and November. Before the announcement, there was some apprehension that foreigners would buy up all the land near the factory, but this proved groundless. The aim of development projects which investors can rent is to provide ready access to their factories thus enabling them to start production as soon as they come to Thailand. As for (5), there were plans, at first, to increase the ratio of Thai shareholdings in foreign investment projects or in stock-sharing plans for the employees of foreign companies. At the end of 1989, however, these plans were replaced by a plan requiring that foreign, export-oriented investment projects list their shares on the Securities Exchange of Thailand.

The following two reasons might explain why the BOI announced that it was making it a policy to attract investment from NIES countries. First, the BOI realized that a number of Taiwan investors were heading for Malaysia instead of Thailand. The reasons given were as follows: soaring land prices, the increase in construction costs, a shortage of infrastructure, delays in getting BOI approval, a shortage of industrial estates near the metropolitan area, delays in customs clearance, two years requirement

in starting production, the lack of a comprehensive supply of raw materials which depended on imports, and of which local production was not planned, and so on. Second, given the consequences of returning Hong Kong to China and the impact of China's Tiananmen Square incident, the BOI is planning to establish an office in Hong Kong in order to attract local investors to Thailand.

In 1990:

- (1) Despatch of missions. The targets are the same as those for 1989.
- (2) Place emphasis on Japan and China
- (3) With regard to promoting foreign investment, the target industries are automobile parts and electronics.
- (4) Promotion of Thai investment abroad.
- (5) As for the distribution of investment, special emphasis will be placed on six provinces in 1990.
- (6) The targets that have been set in terms of the number of project and the total investment are, 1,000 applications worth 350 billion baht, and 1,200 projects worth 360 billion baht in terms of the number of projects to be granted approval. The target number of applications for foreign investment projects amounts to 600.

As for (1), special emphasis is placed on EC countries to enable Thailand to cope with the unification of the EC in 1992 and the rapidly changing situation in Eastern Europe. There are plans afoot to invite EC investors to Thailand before the political and economic situation of Eastern Europe settles. Emphasis will also be placed on the US in that the trend in US investment in 1989 underwent a decline. The objective of (2) is to attract investors aiming to re-export to Japan, the target industries being automobile parts, electrical and electronics parts, and telecommunications equipment parts. China is expected to launch joint ventures with Thailand in food processing and automobile parts. As for (4), Indochina is the target of Thai investment abroad. The six provinces referred to in (5) are Lampang, Phitsanulok, Udon Thani, Ubon Ratchathani, Songkhla, and Chumphon. The following is a breakdown of the number of foreign investment projects expected in (6): Japan 150, Taiwan 150, the US 100, Europe 120, and others 80.

Apart from the promotion of foreign direct investment, there have also been a number of achievements in the promotion of investment, as follows:

- (1) Promotion of investment in the provinces: In September 1987, there was a change in the criteria for promotion. Investment Promotion Zones were divided into three main categories: Zone 1 consisted of Bangkok and Samut Prakan; Zone 2 consisted of four provinces surrounding Bangkok; while the remaining 67 provinces constituted Zone 3. Projects located in Zone 1, excluding export-oriented projects or those located

in industrial estates, lost tax and duty privileges. Projects located in zone 3 receive the most privileges. The distribution of projects in terms of application, as shown in Table 20, indicates that the proportion of projects located in Bangkok and Samut Prakan decreased from 40.6% in 1987 to 25.1% in 1988, and those in the four provinces surrounding Bangkok also experienced a decline, from 21.5% to 15.5%. On the other hand, excluding the six provinces mentioned above, the proportion of projects in the Central region increased from 17.8% to 33.6%. This indicates the progress made in the distribution of investment among the provinces, owing to the tax and duty privileges in Zone 3 and the mounting difficulties in finding a suitable location in and around the congested metropolitan area.

Changes in zoning were again introduced in January 1989. Zone 2 was merged with Zone 1 to become the new Zone 1, while a new Zone 2 was set up consisting of ten provinces in the Central region, the remaining 57 provinces constituting Zone 3. The aim of these changes was to accelerate the spread of investment, which is now fanning out through the new Zone 2, towards the newly designated Zone 3. As one of the measures aimed at dispersing investment throughout the provinces, plans were drawn up to establish regional offices of the BOI in the North, the Northeast, and the South. The northeastern office, in Nakhon Ratchasima, opened in December 1988, the southern office, in Surat Thani, in June 1989, and the northern office, in Chiang Mai, in August 1989. As shown in Table 20, the number of projects located in the north, the northeast and the South has gradually increased, suggesting the effect that the setting up of regional offices of the BOI has had.

The locations of the projects undertaken by five foreign countries, in terms of the number of applications received in 1988, are shown in Table 21. Compared with the total number of projects applying for BOI approval, most foreign investment projects tend to be located in the metropolitan area, especially those launched by Japan and the UK. However, there was also a rather high ratio of projects launched by these two countries in Zone 3, indicating the increasing number of projects deciding to locate beyond the 10 central provinces. For example, in the Northern Industrial Estate located in Lamphun, only 16 firms had reserved land in the industrial estate by the end of October 1988 however, by the end of October 1989, there were 52 firms, of which 19 were Japanese. The top four firms in terms of size of investment are Japanese companies engaged in the manufacture of electronics parts and the processing of agricultural produce. In contrast, Taiwanese firms tend to favour the Central region.

(2) Emphasis on quality rather than quantity. One example of a promoted industry where the emphasis has been falsely placed on quantity is concentrated latex. A large number of projects were approved in 1988, but there were also many cancellations after prices fell in 1989. This is one of the reasons for the large number of cancellations in 1989, as shown in Table 1. In 1989, therefore, emphasis was placed on quality in order that the current policy target, as mentioned above, could be met. That meant improving productivity and strengthening the competitiveness of Thai industry.

In addition, the electronics, automobile parts and petrochemical industries are regarded as important industries if the country is to develop and gain the status of a

Table 20
Distribution of Projects by Location (in number of projects and % share)

	Applications						Approval	
	1987	1988	1989(1-9)	1987	1988	1989(1-9)	1987	1989(1-9)
Bangkok & Samut Prakarn	437 (40.6)	552 (25.6)	260 (30.4)	290 (45.7)	430 (29.1)	259 (28.3)		
4 Provinces nearby Bangkok	231 (21.5)	333 (15.5)	96 (11.2)	160 (25.2)	281 (15.6)	158 (17.3)		
10 Provinces in Central	272 (25.3)	577 (26.8)	196 (22.9)	113 (17.8)	349 (23.6)	256 (28.0)		
Other Central		230 (10.7)	90 (10.5)		146 (10.0)	70 (7.6)		
North	35 (3.3)	65 (3.0)	63 (7.4)	17 (2.7)	48 (3.2)	56 (6.1)		
North-east	20 (1.9)	59 (2.7)	51 (6.0)	12 (1.9)	33 (2.2)	44 (4.8)		
South	57 (5.3)	309 (14.4)	75 (8.8)	40 (6.3)	240 (16.2)	69 (7.5)		
Unknown	25 (2.3)	26 (1.3)	24 (2.8)	3 (0.5)	1 (0.1)	4 (0.4)		
Total	1,077 (100)	2,153 (100)	855 (100)	635 (100)	1,480 (100)	916 (100)		

Remark: Total figure exceed the actual number of projects, because some projects are located in more than one region.

Source: BOI.

Table 21
Distribution of Foreign Projects by Location (in number of projects and % share)

	Total	Zone 1	Zone 2	Zone 3	Unknown
Japan	389	224 (57.6)	60 (15.4)	89 (22.9)	16 (4.1)
USA	136	60 (44.1)	34 (25.0)	19 (14.0)	23 (16.9)
UK	45	23 (51.1)	11 (24.4)	10 (22.2)	1 (2.2)
Taiwan	400	164 (41.0)	141 (35.3)	73 (18.3)	22 (5.5)
Hong Kong	126	60 (47.6)	29 (23.0)	31 (24.6)	6 (4.8)

Remark: Based on Current Zoning effective from Jan. 1989.

Source: BOI.

NIE. It is necessary to introduce foreign capital into these sectors in order to enhance the nation's technological capability, as well as to foster the growth of Thai firms. Since 1988, the BOI has been mapping out a policy to promote the electronics industry. Additional privileges will be given to projects with a high proportion of Thai shareholdings, while the required minimum investment will be scaled down in order to encourage the participation of small and medium-size Thai industries in this sector, at the same time connecting these industries with large-scale foreign firms in terms of the production of components and parts for their assembled products. This policy was introduced in order to end complaints that had been raised by local producers protesting that export-oriented investments by large Japanese manufacturers had cut into local sales in 1987 and 1988, and also in order to support other Thai industries. At the end of 1989, the BOI announced a new policy aimed at supporting electronics firms by allowing them to sell up to 50% of their outputs of parts and components locally and by reducing import duties on raw materials and machinery for joint ventures with over 75% of the shares owned by Thais.

In the field of science and technology, in February 1989, the BOI issued criteria for promoting research & development (R & D) related projects. However, the response from the private sector was not favorable, a fact which the BOI seemed to find disappointing. A policy regarding the transfer of technology from foreign firms was also drawn up. It included measures to monitor the transfer of technology in order to ensure that the Thai's derived maximum benefit from it; however, the detailed plan was turned down by local manufacturers.

2. Controversy Over the Role of Board of Investment

In 1989, a number of arguments arose over the role of BOI. Accordingly, in June, the BOI also set up a sub-committee to review its promotional policy. The introduction of the value-added tax which the Government planned to levy from January 1990 onwards also led to controversy.

The business tax will be nullified by the introduction of the value-added tax. Nullification of the business tax is good for the development of industry in that it has often been singled out as an obstacle to fostering a social division of labour. On the other hand, it means the loss of one of the tax and duty concessions that the BOI currently provides. This tax privilege is one of the measures aimed at spreading investment in the direction of the provinces. As for the reduction of import duty on raw materials, according to the most recent reports, this will be changed to a system of tax refunds, which means an increase in the burden shouldered by the firm receiving promotional privileges. The BOI, therefore, needs to work out another system of promotional privileges for the firms located in the provinces and to find a way to lessen the burden of firms promoted by a reduction in the import duty on raw materials. By postponing the introduction of the value-added tax, however, the argument on this issue soon ceased.

The next problem was the reduction of import duty on machinery. There were two main reasons for this reduction: first, considering the trade conflicts that had been caused by the rapid growth of Thai industrial exports, it was necessary to abolish the reduction of import

duty on machinery for BOI-promoted firms, and to levy these lower tariff rates equally. In this way it is possible to avoid the criticism made by importing countries that exports are subsidized. Second, the lowering of tariff rates solved the inequity between firms that had received promotional privileges and those that had not. On this issue, the Ministry of Finance resisted lowering tariff rates on imported machinery because they would lose an important source of revenue. They wanted to lower tariff rates selectively, in other words, on a case-by-case basis. In addition, lowering tariff rates on imported machinery would also lead to a loss of the duty privileges the BOI was able to provide. Nevertheless, BOI agreed to lower the tariff rate for the following reason. BOI staff was currently working too hard owing to the huge increase in investment; if the lowering of tariff rates became a reality, then, small and medium-scale industries would not need to apply to the BOI. Thus, the number of projects to be screened would decrease, reducing the burden on BOI staff. Instead, the staff would be able to devote themselves to the promotion of the type of large-scale projects which Thailand really needs. These are the opinions of high-ranking BOI officials.

As regards these arguments, a big change can be seen in the way BOI privileges are perceived. In the past, the BOI had been criticized for promoting large-scale industries only. The BOI was instructed to take small and medium-scale industries into account as well. Fair treatment means granting promotional privileges not only to large firms but also to small and medium-scale firms; it is this kind of fair treatment which was frequently requested in the past. But at the time of 1989, there was a change of views as fair treatment is to abolish the privileges which will be given to only small number of firms. What exactly is the background to this change? Mainly, it is the result of the economic changes brought about by the investment boom the country has been experiencing since the latter half of 1986. Given the momentum created by the large increase in foreign direct investment and the country's efforts to attain the status of a NIE, Thai people are now confident in their economic performance. There is one line of thinking that asserts that Thai economy now is no longer at the stage where it needs to foster industry with tax and duty privileges, since there are many opportunities for an entrepreneur to launch a new applies enterprise or to expand business. If one applies this line of thinking to foreign investment, there would be no need to attract foreign investors with measures such as tax and duty privileges, because they would come to invest in Thailand willingly. Already one hears arguments to the effect that requests should be made to 100% foreign-owned firms, asking them to allow Thais to hold shares, or else face a reduction in the promotional privileges granted to them.

The proposal made at the end of 1989 to abolish the BOI or to reorganize it as the Board of Export could be viewed as a logical follow-up to the aforementioned argument. There was a public response, to the proposal, although it gained few supporters, mainly because it was advocated by persons who were considered influential economists, with full confidence in the performance of the Thai economy. Thailand had now reached a stage of development where it was able to attract foreign investment without offering tax and duty privileges. In other words, foreigners are coming to invest in Thailand not because of tax and duty privileges, but because it enjoys economic stability, and has all the prerequisites for production, as well as the necessary infrastructure. Since there is no need to promotional privileges, the historical role of the BOI has come to an end. This has led to the suggestion that the BOI should be dissolved or restructured as the Board of Export, an organization for the promotion of exports.

If tax and duty privileges were abolished, it is debatable whether foreign investors would come to invest in Thailand as in the past. In one sense, Thailand is a lucky country. Just when Thailand was facing a shortage of infrastructure as well as a shortage of engineers and technicians due to an overheated economy, and foreigners were beginning to turn their attention to other countries in the region, there was the Tiananmen incident in China and an attempted military coup in the Philippines. Investors returned because these incidents confirmed Thailand's political and economic stability. However, this was not a positive reason for their selection; these foreign projects could easily be located in other countries. As mentioned above, the BOI itself has taken a positive stance in promoting foreign investment. They counter-argued that it was necessary to have a system of investment promotion because Thailand still possesses the ability to attract foreign investment from the neighbouring countries. However, they also admit the need to change the role of the BOI; hence a proposal was made by senior staff members of the BOI suggesting the BOI to change its role; e.g., by concentrating on large-scale projects or on the promotion of Thai investment abroad. Although no dramatic changes, such as the dissolution of the BOI, can be expected in the near future, the BOI will remain an object of controversy-a fact that is also indicative of the changes the Thai economy is undergoing.

Conclusion

A rapid increase in foreign direct investment will contribute to raising the standard of industrialization in Thailand. As regards foreign trade, the effects can be seen in the increase in industrial export from 1990 onwards. When the export targets for 1990 were formulated, the export value of firms which the BOI had promoted during 1986 and 1988 was estimated at 40 billion baht in 1990, 90 billion baht in 1991, 120 billion baht in 1992 and 140 billion baht in 1993. Although the trade deficit will increase due to the rise in imports of capital goods and raw materials, this problem will improve if all the projects proceed smoothly and export their output without any difficulty, the majority of these projects being export-oriented. Some even expect that there will be a surplus balance of trade in the 1990's. The structure of trade is also changing owing to the increase in industrial exports. The structure of Thai industry will continue to make advances in the 1990's, and if the situation goes smoothly, Thailand might be able to gain the status of a NIE.

Although an unexpectedly large inflow of foreign investment stimulated the high rate of economic growth in Thailand, this rapid growth caused many problems. These problems may be summarized as follows: a shortage of infrastructure, a shortage of engineers and middle-class management, lack of supporting industries, social disruption due to such things as soaring land prices, a shortage and price-hikes of construction materials, inflation, trade conflicts with the US and European countries, and the widening gap in income distribution. It is generally considered that solving these problems constitutes the key as well as the spur to industrialization.

However, the problem which needs to be considered in the long-term is the fact that recent investment boom has been fed by foreign capital. The relocation of production and export bases indicates the favorable investment climate in Thailand. The investment climate,

however, is relative, and thus has to be compared with that of other developing countries. When production costs increase to a certain level, it seems certain that some foreign firms now operating in Thailand will move to third countries, in their search for low production costs. This is sure to happen when Thailand becomes a NIE. The problem is whether Thailand can sustain the status of a NIE by raising the standard of technological capability in industry at that time. This is a matter of policy as well, that is, whether the Government has a definite plan for industrialization or not, and to what extent they can support local industry. Raising the ratio of Thai shareholding in foreign joint ventures is one means of achieving this goal. Nevertheless, there is lack of policy as regards what kind of supporting industries should be promoted and how to support them. As has already been observed, the machinery and electric equipment sector is largely dependent on foreign capital. It is necessary, therefore, for the Thai Government to grasp this situation and try to map out a strategy to achieve the kind of industrialization Thailand is aiming for.

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